

**REMARKS**

Claims 1, 4 and 5 are pending in this application. Claims 1 and 4 have been amended. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. Applicants submit that the present Amendment does not generate any new matter issue.

**Claims 1, 4, and 5 were rejected under the second paragraph of 35 U.S.C. § 112.**

In the statement of the rejection the Examiner asserted that the expressions “significantly reduced” and “reduced increment” in claim 1 are relative terms which render the claimed invention indefinite. The Examiner also asserted a lack of antecedent basis for the “formed bodies” recited in claim 4. This rejection is traversed.

Initially, the term “significantly” has been deleted from claim 1 and antecedent basis provided in claim 1 for the “formed bodies” recited in claim 4. As to the language “reduced warp” and “reduced increment”, as stressed in the responsive Amendment submitted September 20, 2004, consistent judicial precedents holds that **reasonable precision** in light of the particular subject matter involved is all that is required by the second paragraph of 35 U.S.C. § 112. *Zoltek Corp. v. United States*, 48 Fed. Cl. 240, 57 USPQ2d 1257 (Fed. Cl. 2000); *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993); *North American Vaccine, Inc., v. American Cyanamid Co.*, 7 F.3d 1571, 28 USPQ2d 1333 (Fed. Cir. 1993); *U.S. v. Telectronics Inc.*, 857 F.2d 778, 8 USPQ2d 1217 (Fed. Cir. 1988); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 23 USPQ (Fed. Cir. 1986). There is **no litmus test** triggering the ultimate legal conclusion of indefiniteness under the second paragraph of 35 U.S.C. § 112 because a perceived relative expression appears in a claim. That some claim

language may not be crafted with absolute precision does not automatically result in indefiniteness under the second paragraph of 35 U.S.C. § 112. *Seattle Box Co., Inc. v. Indus Crating & Parking, Inc.*, 731 F.2d 818, 826 [221 USPQ 568] (Fed. Cir. 1984).

As also previously stressed, the use of relative expressions has been sanctioned in numerous judicial decisions. See, for example, *Andrew Corp. v. Gabriel Electronics, Inc.*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988). **Precision should not be equated with quantification.** Rather, the degree of precision required is a function of the subject matter. *Miles Laboratories, Inc. v. Shandon, Inc.*, *supra*. In this respect, Applicants would again note that the expression “essentially free of alkaline metal” did not render a claim indefinite. *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 218 USPQ 289 (Fed. Cir. 1983). Further, the expression “to substantially increase the efficiency ...” was held to comply with the second paragraph 35 U.S.C. § 112. *In re Mattison* 509 F.2d 563, 184 USPQ 44 (CCPA 1975). Moreover, the expression “substantially water-free” did not run afoul of the second paragraph of 35 U.S.C. § 112. *Biotech Biologische Naturverpackungen GmbH v. KG Biocorp* 58 USPQ2d 1737 (Fed. Cir. 2001).

In applying the above legal tenets to the present factual situation, Applicants submit that the Examiner did not establish a *prima facie* basis to deny patentability to any of the claims under the second paragraph of 35 U.S.C. § 112. The expressions “reduced warp” and “reduced increment” are not relative expressions. They simply mean that the problem of warp after sintering and after heat treatment is addressed and solved in accordance with the present invention by uniformly distributing sintering agents, such that after sintering and heat treatment there is less warp and less increment in warp than without the present invention involving the uniform distribution of sintering agents. Claim 1 merely requires that the warp and increment in

warp are reduced vis-à-vis aluminum nitride ceramic bodies wherein the uniformity distribution of sintering agents, as recited in claim 1, is not implemented.

It is, therefore, difficult to conceive of one having ordinary skill in the art who would not understand the expressions “reduced warp” and “reduced increment in warp” as employed in claim 1, particularly when reasonably interpreted in light of and consistent with the written description of the specification which is the judicial standard. Again, absolute precision of claim terms is not a requirement from the second paragraph of 35 U.S.C. § 112. *Seattle Box Co., Inc. v. Indus Crating & Packing, Inc.* supra; *Andrew Corp. v. Gabriel Electronics, Inc.*, supra, *Fromson v. Advance Offset Plate, Inc.* supra, *In re Mattison*, *Biotech Biotech Biologische Naturverpackungen GmbH v. KG Biocorp* supra. Applicants, therefore, submit that the imposed rejection of claims 1, 4 and 5 under the second paragraph of 35 U.S.C. § 112 is not legally viable and, hence, solicit withdrawal thereof.

**Claims 1, 4 and 5 were rejected under 35 U.S.C. § 102 for lack of novelty or, alternatively, under 35 U.S.C. § 103 for obviousness predicated upon Harris ‘261, Chiao, Yasumoto et al., Sugiura et al. and JP ‘265, each considered alone.**

**Claims 1, 4 and 5 were rejected under 35 U.S.C. § 102 for lack of novelty or, alternatively, under 35 U.S.C. § 103 for obviousness predicated upon Harris ‘377.**

Each of the above rejections is traversed.

As argued in the responsive Amendment of September 20, 2004, this Examiner did not provide a sufficient **factual** basis upon which to predicate the determination of **inherency** which requires absolute certainty. Again, it is **not** disputed on this record that **none** of the applied

references, taken singly or in combination, disclose or suggest that the **problem** of warp after sintering and increment in warp after heat treatment are related in any way to the **uniformity of sintering agents (a/b) as specifically recited in claim 1**. It also indisputable that none of the applied references even recognizes the warpage problems addressed and solved by the claimed invention. Certainly **none** of the applied references, taken singly or in combination, hint at solving the warpage problem by uniformly distributing sintering agents throughout a sintered ceramic base material, let alone by employing a porous setter, as in the claimed invention. Under such circumstances it is unrealistic to assert that any of the applied references inherently, i.e., **necessarily**, discloses or suggests the claimed invention.

At any rate, in order to expedite prosecution, claims 1 and 4 have been amended by clarifying that the setter is **porous**. None of the applied references discloses the use of a porous setter. Indeed, only Chiao discloses a setter. However, Chiao does **not** disclose whether the setter is **porous** or nonporous. As the Examiner should be aware, “rejections predicated upon inherency cannot rely on **uncertainties or happenstance**. *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002); *Finnegan Corp. v. ITC*, 180 F.3d 1354, 51 USPQ2d 1001 (Fed. Cir. 1999); *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994). Applicants again stress it is legally erroneous to deny patentability to a claimed invention on the theory that one having ordinary skill in the art would have stumbled into the invention unknowingly. *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 20 USPQ2d 1746 (Fed. Cir. 1991).

Applicants also stress that **none** of the applied references discloses the use of a **porous** setter as in the claimed invention, much less recognize the warpage problem addressed and

solved by the claimed invention, let alone how to solve that warpage problem i.e., by controlling the uniformity of distribution of the sintering agents. These limitations are specified in claim 1.

Applicants, therefore submit the Examiner did not establish the requisite factual basis upon which to deny patentability to the claimed invention on the basis of inherency which requires **certainty, not speculation**. *Continental Can Co. USA, Inc. v. Monsanto Co., supra*. Moreover, Applicants again invite the Examiner's attention to the objective evidence in the specification which undermines any inherency determination. It is clear a legal error to ignore such evidence.

**Evidence in the specification.**

As previously argued in the September 20, 2004 responsive Amendment, the data in Table 2 **clearly demonstrate**, that the **uniformity** of sintering agents, warp after sintering and increment in warp after heat treatment **don't just happen by chance**. Rather, one having ordinary skill in the art must establish such objectives as by increasing the uniformity of sintering agents.

The Examiner improperly eschews such hard evidence, adhering to the unrealistic opinion that the **general** processes disclosed by the references, **without any control**, would somehow **necessarily** yield results corresponding to those in the examples set forth in Table 2 while conspicuously **avoiding** the results representative of comparative examples. That is pure **speculation**. Applicants again stress that the data in Table 2 undermine the proposition that methods in **general**, such as those of the applied references, would **necessarily** produce the claimed aluminum nitride ceramic base material. *Continental Can Co. USA, Inc. v. Monsanto Co., supra*. Thus, the data scotch the Examiner's inherency theory.

**Summary**

The Examiner did not establish the requisite factual basis upon which to invoke the doctrine of inherency. Moreover, the specification provides ample evidence to undermine any determination of inherency, which requires **certainty**. *Continental Can Co. USA, Inc. v. Monsanto Co., supra*. Indeed, none of the applied references discloses the notion of controlling the uniformity of the distribution of the sintering agents, let alone recognizes that such uniformity of sintering agents impacts warpage. None of the applied references disclose the use of a **porous** setter. These undisputed facts undermine the Examiner's attempt to invoke the doctrine of inherency.

Moreover, there is no apparent factual basis upon which to predicate the conclusion that one having ordinary skill in the art would have been realistically motivated to manipulate the methods of any of the applied references in any attempt to arrive at the claimed invention, absent improper reliance upon Applicants' disclosure. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985). Applicants, therefore, submit that the imposed rejections of claims 1, 4 and 5 under 35 U.S.C. § 102 for lack of novelty or, alternatively, under 35 U.S.C. § 103 for obviousness predicated upon Harris '261, Chiao, Yasumoto et al., Sugiura et al. and JP '265; and the imposed rejection of claims 1, 4 and 5 under 35 U.S.C. § 102 for lack of novelty, or alternatively, under 35 U.S.C. § 103 for obviousness predicated upon Harris '377, are not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

**Application No.: 09/339,826**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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